

## **REMARKS / ARGUMENTS**

Reconsideration of the above-identified application respectfully requested.

### **Claim Amendments**

The undersigned apologizes for not properly indicating the amendments made to claims 22 and 30 in the prior amendment. It was an inadvertent oversight.

### **The Claim Rejections**

Claims 22, 26-28, and 30-33 stand rejected under the provisions of 33 U.S.C. § 103(a) as being unpatentable over DuPont (U.S. Patent No. 6,855,338). In framing the rejection, the Examiner has stated without citation that the recited instructions “do not add any patentable feature to the claims but are yet a description of a packaging characteristic.”

Applicants respectfully traverse the rejection of the claims and grounds therefor.

### **Argument**

DuPont discloses an anti-tumor composition composed of an anti-neoplastic agent and shark cartilage. One of the listed anti-angiogenic compositions is suramin. Not disclosed by DuPont is the fact that use of therapeutic (high) doses of suramin yield concentrations between about 300 to about 650  $\mu\text{M}$ , which do not enhance the efficacy of chemotherapeutics and only enhanced the toxicity of chemotherapy. In fact, it was Applicants showed that only low doses of suramin, which yield circulating concentrations of below about 200  $\mu\text{M}$  (e.g., between about 10 to about 50  $\mu\text{M}$  plasma concentrations) when a chemotherapeutic agent (e.g., paclitaxel) was present in the plasma at therapeutically significant levels, enhanced the efficacy of chemotherapy in tumor-bearing animals. Applicants' discovery is diametrically the opposite of the teachings of DuPont.

With respect to “print instructions”, it is material error to ignore printed instructions in applying Section 103(a), even it the printed matter does not constitute patentable subject matter. *In re Gulack*, 217 USPQ 401 (Fed. Cir. 1983). More recently, the same Court stated that printed matter has patentable significance if there exists any new and unobvious functional relationship between the printed matter and the composition of the kit. *In re Ngai*, 35 USPQ2d 1384 (Fed. Cir. 2004). The MPEP expressly recognizes the vitality of the *Gulack* decision at MPEP § 2112.01 by stating, *inter alia*: “III. ... [T]he critical question is whether there exists any new and unobvious functional relationship between the printed matter and the substrate.”

Applying that Court and MPEP sanctioned standard to the kit subject matter of claim 22, the printed instructions provide a new and unobvious functional relationship between suramin and the printed instructions. That is, the printed instructions inform the user that a patient must have a low dose of circulating suramin ( $< 200 \mu\text{M}$ ) at which time a chemotherapeutic is administered to the patient for enhancement of the chemotherapeutic activity. Moreover, the printed instructions also provide an algorithm for the physician to use in determining the proper dose of suramin for each patient based on criteria not taught by DuPont or any other reference. Such criteria include the following elements from claim 22:

- (b1) determining the squared value of the body surface area (BSA) of said patient;
- (b2) determining the time elapsed, in days, since the initiation of the last suramin treatment; and
- (b3) calculating the dose of low dose suramin using a nomogram that shows the dose according to the parameters of squared value of body surface, and elapsed days since last suramin treatment.

All other claims include the limitations of claim 22. Claim 26 further discloses a particular cytotoxic agent. Claims 27 and 28 further disclose particular ranges of circulating suramin. A nomogram is recited in claim 30. Additional cytotoxic agents are disclosed in claim 31. Claim 32 further discloses a time period over which the suramin is administered to the patient. Claim 33 also discloses a time period over which particular amounts of suramin are administered to the patient. Finally, claim 34 further discloses another treatment regimen.

None of these functional relationships between suramin and the printed instructions are disclosed in the art.

In support of this position submitted herewith is the declaration of Dr. Au, a co-inventor of the subject matter disclosed in the above-identified application. Dr. Au elegantly relates the research that led to the subject being claimed. In particular, Dr. Au supports each every point argued above. Indeed, there is the requisite functional relationship between suramin and the printed instructions. Moreover, in Dr. Au's expert opinion, the functional relationship is non-obvious.

The printed instructions, then, satisfy the *Gulack* test as approved of in the MPEP and cannot be ignored by the Examiner. It is noted finally that even Ngai's ultimately issued patent contained a "kit" claim.

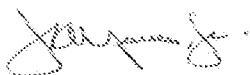
The Double Patenting Rejection

Applicants have submitted a preliminary amendment canceling clam 29. This issue now is moot.

Conclusion

In view of the claim amendments and remarks submitted herewith, allowance of the claims and passage to issue of this application respectfully is requested. If an allowance of the claims is not forthcoming, please enter this amendment for purposes of appeal.

Respectfully submitted,



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